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(56) Documents Cited

GB 0619455 A

JP 110018901 A

JP 100272047 A

JP 100127988 A

US 5052599 A

US 4063670 A

US 3856190 A

(58) Field of Search

UK CL (Edition T) A4L

INT CL⁷ A47G

Other: Online: EPODOC, JAPIO, WPI

(54) Abstract Title

Garment hanger

(57) A garment hanger comprising an arm (2) for carrying a garment and a hook (7) for suspending the hanger either in a warehouse or in a shop is provided with a boss (8) extending from the lower end of the hook within the central region of the arm. The boss (8) is slidable between a raised position suitable for storing the garments in a warehouse and a lower position suitable for displaying garments in the shop or store. In the latter position, a barb (not shown) carried on the boss engages an aperture (not shown) in the central, collar portion of the arm.

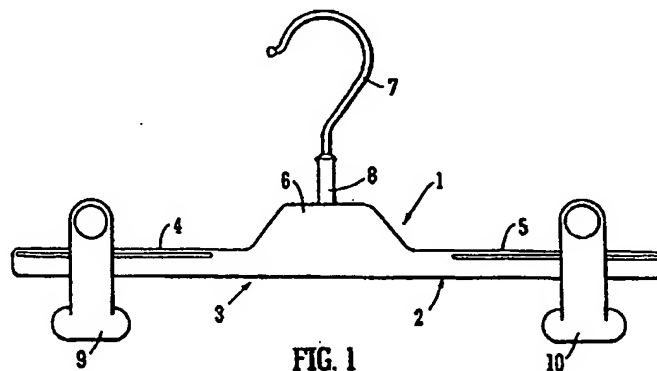


FIG. 1

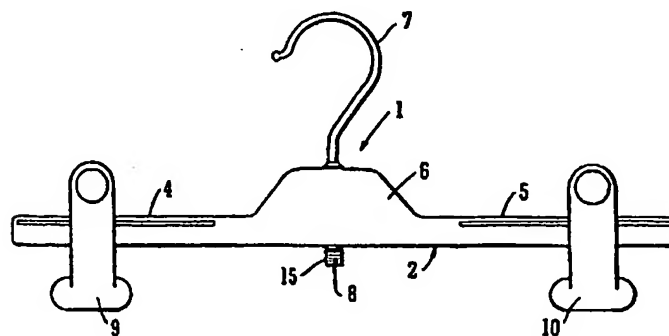
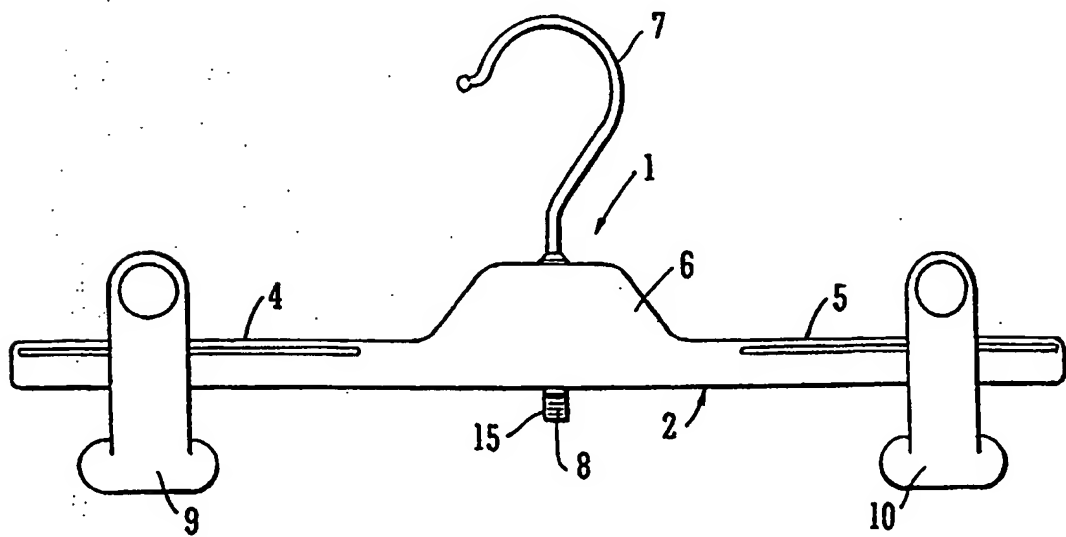
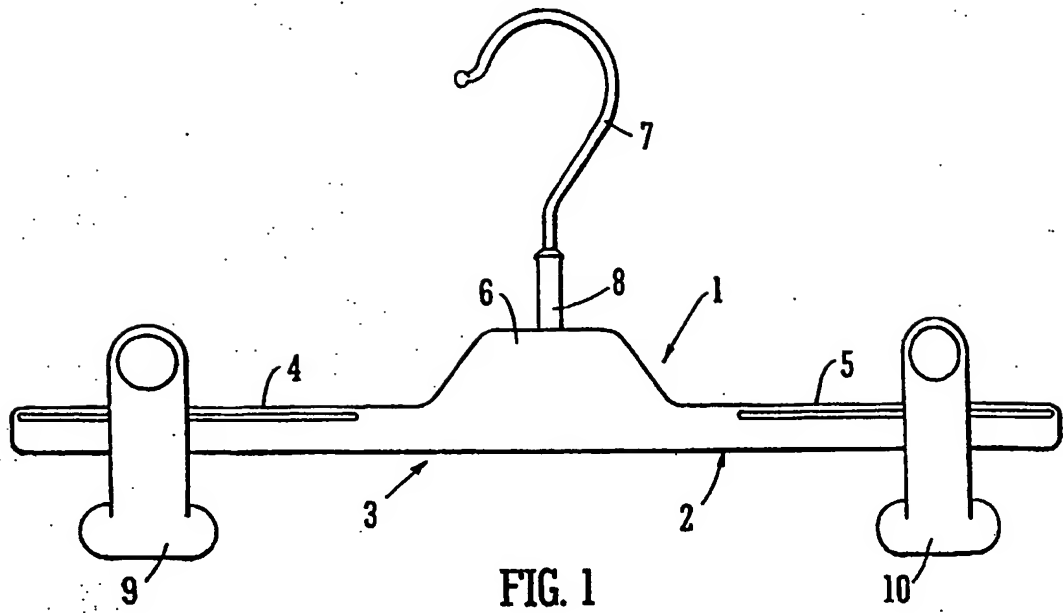


FIG. 2



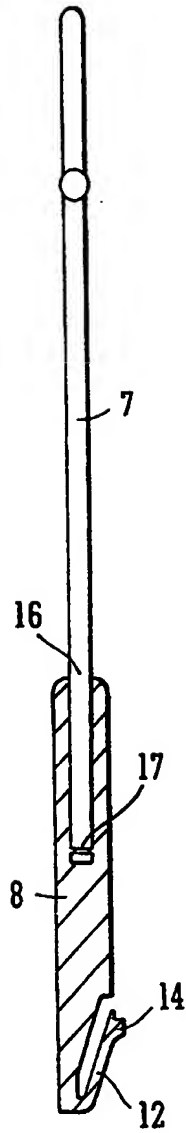


FIG. 3

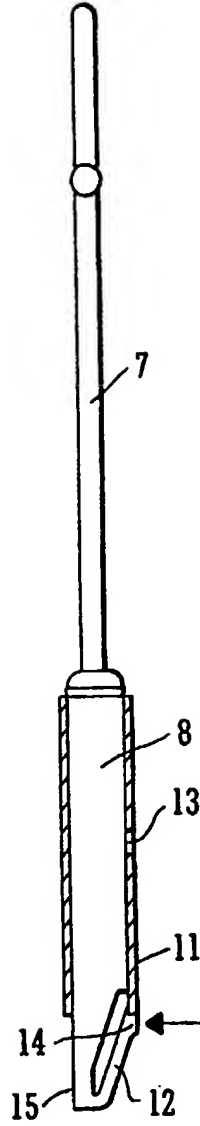


FIG. 4

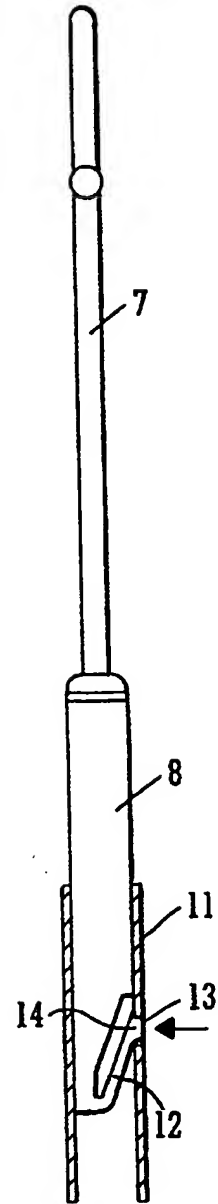


FIG. 5

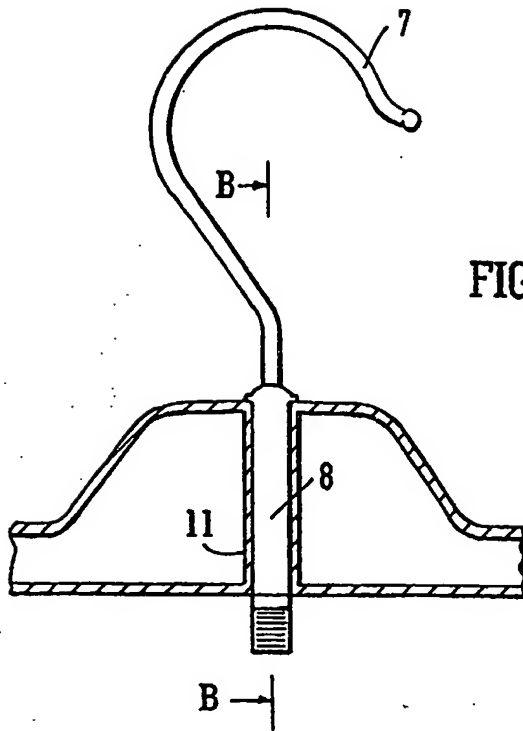
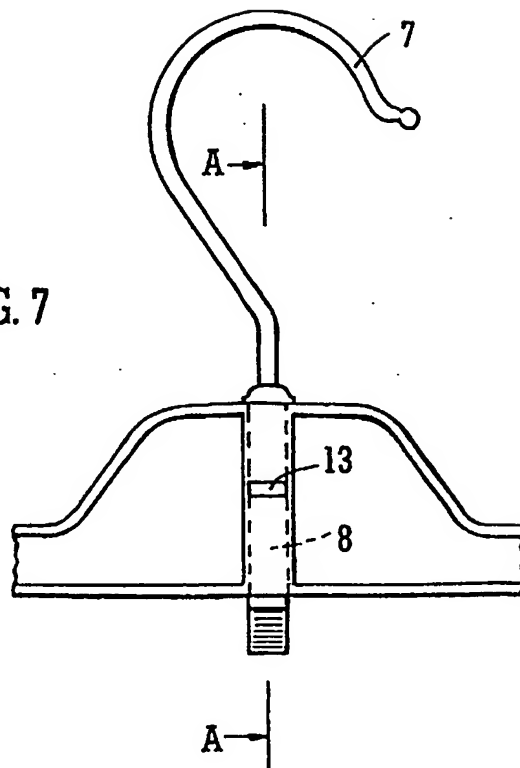


FIG. 7



GARMENT HANGER

The present invention relates to a garment hanger and particularly though not exclusively to a garment hanger for displaying garments in store.

Garment hangers for displaying garments in stores usually comprise a portion adapted to receive the garment to be hung from the hanger and means to suspend the portion from a support. The portion may comprise an arm or a pair of arms over which the garment e.g. a jacket is draped or the arms may each be provided with a clip to grip the garment e.g. a skirt or trousers. The means to suspend the portion may be a hook which is secured to the portion and which is engaged with a support usually in the form of a rail to display the garment item or to store the item in a warehouse.

When the garment is on display in the store or shop the arm or arms preferably need to be close to the rail from which the arm or arms are suspended by the hook so as to reduce the amount of display space in the store.

On the other hand, when the garment is stored in a warehouse more space between the arm or arms and the rail is needed so that the garments can be transported from place to place by, for example, an overhead rail system.

It is therefore an object of the present invention to provide a garment hanger which overcomes the above-described problem of conventional garment hangers.

According therefore to one aspect of the present invention, we provide a garment hanger comprising a portion adapted to receive the garment to be hung from the hanger and means for suspending the portion from a support, the

means being attached to the portion in such a way as to permit the means to be movable relative to the portion.

Preferably the portion comprises a pair of arms and a neck therebetween to which the means is attached.

5 Suitably the means is a hook having a boss attached to the portion. Conveniently the boss is movable in the neck to one of two positions.

Preferably the boss is movable between a first locked position and a second position, the portion being closer to
10 the hook in the second position.

The means may be movable to one of two positions.

Suitably the means is movable between a locked position and a released position, the portion being closer to the means in the released position.

15 Embodiments of the invention will now be particularly described with reference to the accompanying drawings in which:

Figure 1 is a front view of the garment hanger in one position, with a hook in an uppermost position;

20 Figure 2 is a front view of the garment hanger of Figure 1 in another position, with the hook in a lowermost position;

Figure 3 is a side view of a hook or boss;

Figure 4 shows the hook in Figure 3 in a second locked
25 position in a collar;

Figure 5 shows the hook in Figure 3 in a first locked position in the collar;

Figure 6 is a back view of the hanger showing a section along line A of Figures 4 and 5.

30 Figure 7 is a back view of the hanger showing a section along line B of Figure 3.

Referring to the drawings particularly Figures 1 and 2 the hanger comprises a portion 2 to receive the garment (not shown) to be hung from the hanger 1 and means 3 for suspending the portion 2 from a support (not shown) which
5 may be a rail in a store of shop.

The portion 2 comprises a pair of arms 4, 5 separated by a neck 6.

The means 3 comprises a hook 7 which may be of metal eg steel and which extends from and includes a boss 8 which
10 in use is attached to the neck 6. The portion 2 and the boss 8 may be made of a suitable plastic such a polypropylene or polystyrene.

As conventional, the arms 4, 5 may each include a slidable clip 9, 10 each of which is slidable along an arm
15 4, 5 and each of which is manually operated to grip and release garments of varying widths.

Referring particularly to Figures 4 to 7 the boss 8 which has an external diameter greater than that of the hook 7 is located in a rectangular collar 11 of plastic
20 which is moulded into the neck 6 of the portion 2 while the base of the hook 7 is moulded into the boss 8.

As shown particularly in Figures 3, 4 and 5 the boss 8 has a flexible barb or tooth 12 formed as part of its body projecting outwardly from the surface of the boss 8.

25 The collar 11 has an aperture 13 approximately midway along its length.

The barb 12 has a portion 14 which on suitable alignment of the boss 8 within the collar 11 and upward movement of the boss 8 engages with the aperture 13 to
30 prevent further upward movement of the boss 8 and therefore hook 7. This position defines a first uppermost locked

position of the boss 8 as shown in Figure 1 and in detail in Figure 3.

On pushing the hook 7 downwardly the barb 12 is released from the aperture 13 and the boss 8 can be moved
5 down to the position shown in Figure 4 where the barb 12 is released from engagement with the internal wall of the collar 11 but instead springs out and engages with the lowermost circumferential wall of the collar where it is locked in a position which defines a second lowermost
10 locked position of the boss 8 as shown in Figure 2.

This arrangement therefore permits the hook 7 to assume two different vertical positions with the first uppermost position (Figure 1) being used for storing the garments in a warehouse and the second lowermost position
15 (Figure 2) being used to display garments in the shop or store.

To move the boss 8 up again from the position in Figure 2, the barb 12 can be pressed inwardly to clear the lowermost circumferential wall of the collar 11 and then
20 the boss 8 can be pushed upwardly, and pulled by the hook 7 into position into engagement with the aperture.

To facilitate the upward pushing the length of the boss 8 is longer than the collar 11 so that when the boss 8 is in the lowermost position, a lowermost part 15 of the
25 boss 8 (see Figures 2, 4, 6 and 7) projects beneath the collar 11 to provide access to the boss 8.

Referring to Figure 3, the hook 7 has a stem 16 which is moulded into the hook boss 8. The moulding is such that the hook 7 can be rotated by rotating its stem 16 within
30 the moulding of the boss 8. However, the friction between the hook stem 16 and the boss 8 is selected so that the hook 7 is stiff and so that therefore the hook 7 can be

rotated to and retain any desired position while retaining most of the original friction. Conventional hooks will loosen. The hook stem 16 has an annular flange 17 which is held captive within a corresponding annular aperture within the boss moulding 8. This prevents the hook 7 from being withdrawn from the boss 8.

While only a two position ratchet-style hook and portion assembly has been shown, it will be appreciated that a three or more position ratchet assembly could be designed.

In addition it will occur to the skilled man that other types of connection between the boss and the collar other than a ratchet can be envisaged.

Claims

1. A garment hanger comprising a portion adapted to receive the garment to be hung from the hanger and means
5 for suspending the portion from a support, the means being attached to the portion in such a way as to permit the means to be movable relative to and away from the portion.
2. A hanger as claimed in claim 1 in which the portion
10 comprises a pair of arms and a neck therebetween to which the means is attached:
3. A hanger as claimed in claim 1 or claim 2 in which means is a hook having a boss attached to the portion.
15
4. A hanger as claimed in claim 3 in which the boss is movable in the neck to one of two positions.
5. A hanger as claimed in claim 4 in which the boss is
20 movable between a first locked position and a second locked position, the portion being closer to the hook in the second position.
6. A hanger as claimed in any of claims 1 of 3 in which
25 the means is movable to one of two positions.
7. A hanger as claimed in any of claims 1 to 3 in which the means is moveable between a first locked position and a second locked position, the portion being closer to the
30 means in the second position.

8. A garment hanger substantially as hereinbefore described with reference to any of the Figures.



INVESTOR IN PEOPLE

Application No: GB 0117742.7
Claims searched: 1-8

Examiner: N Franklin
Date of search: 24 June 2002

Patents Act 1977 Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.T): A4L

Int Cl (Ed.7): A47G

Other: Online: EPODOC, JAPIO, WPI

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	GB 0619455 (KENNEDY) See p1 lines 62-66 & adjustable hook 14 in Figures 1,1a &2	1-7
X	JP 110018901A (SHINKO HANGER KK) See hook 2 in Figures 1&3	1-4,6
X	JP 100272047A (N K PROD KK) See adjustable hook 2 in Figures	1-7
X	JP 100127988A (SAZANAMI KK) See hook 3 in Figures	1-7
X	US 5052599 (PLATTI) See hook 36 in Figures 19&20	1-3
X	US 4063670 (FAARBECH) See hook 20 in Figures 1-4	1,2,6
X	US 3856190 (MOLE) See adjustable hook 9 in Figures	1-7

X Document indicating lack of novelty or inventive step
Y Document indicating lack of inventive step if combined with one or more other documents of same category.

& Member of the same patent family

A Document indicating technological background and/or state of the art.
P Document published on or after the declared priority date but before the filing date of this invention.
E Patent document published on or after, but with priority date earlier than, the filing date of this application.

PATENT SPECIFICATION

619,455



Application Date : Dec. 11, 1946.

No. 36603/46

Complete Specification Accepted : March 9, 1949.

Index at acceptance:—Class 52(v), U4(b:s).

COMPLETE SPECIFICATION

Improvements in or relating to Hangers for Coats or the like.

I, ERNEST NORBERT KENNEDY, a British Subject, of 170, Piccadilly, London, W.1, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to hangers for coats or the like such as are ordinarily used in domestic wardrobes, wardrobe trunks, and travelling cases. In articles of this kind, especially wardrobe trunks and travelling cases, compactness and space-saving are desirable features, and considerable ingenuity has been exercised in seeking to put all the available space to use for storage purposes. Hangers are usually made of thin material, such as plywood or fibre board, either for the purpose of reducing the cost of manufacture or to save space, or for both reasons. Such hangers offer a very small supporting area to the shoulders of the coat or the like, and in consequence tend to produce creases. An object of the invention is to provide a hanger which will occupy a small space when not in use, but which, when supporting a coat, will not crease it.

The normal hanger, moreover, which is arranged to be suspended from a support in the wardrobe or case, has an upwardly extending hook (to engage the support) which projects up an appreciable amount, and, by spacing the hanger away from the support, renders it difficult to utilize for storage purposes the space between the support and suspended coats, since articles placed there are likely to be disturbed when coats are hung on or removed from the support. It is another object of the invention to provide a hanger which will be more economical as regards the space it occupies, when packing in a travelling case.

According to the invention, a hanger for coats or the like may have a flexible member on each shoulder arranged to bend or spread under the weight of a coat or the like in a direction normal to the span of the hanger and so increase the effective thickness on which the shoulders of the coat rest. The

flexible member may be constituted by a strip 50 of resilient material presenting, when secured to the hanger, a cross-section of substantially tubular shape.

Alternatively, the flexible member may be constituted by at least two strips of resilient material secured to the sides of the shoulder of the hanger and normally projecting upwardly above said shoulder.

The strips may be formed with substantially vertical cuts or gores at spaced intervals, so as to provide a number of hinging flaps.

The hanger may have a hook arranged to be slidable vertically relatively to the hanger and to be secured in either an extended or a retracted position for the support of the hanger.

Various embodiments will be described with reference to the accompanying drawings, in which:

Fig. 1 is a fragmentary side elevation of the central portion of a hanger, showing the hook retracted,

Fig. 1a is a similar view showing the hook extended,

Fig. 2 is a sectional elevation substantially on the line II—II, Fig. 1a,

Fig. 3 is a side elevation of another form of hanger,

Fig. 4 is a cross-section on the line IV—IV, Fig. 3, showing the hanger before use,

Fig. 4a is a corresponding view showing the hanger during use,

Fig. 5 is a cross-section of another form,

Fig. 6 is a cross-section of yet another form, and

Fig. 7 is a fragmentary side elevation of the form shown in Fig. 6.

Referring to Figs. 1, 1a, and 2, a hanger has shoulders 10 held by and around which is a metal union 11, in one side of which are two apertures 12, 13. A hook 14 has an outwardly turned tail 15 arranged to project through, and so engage in, either of the apertures 12, 13 as desired. The tail 15 is disengaged from an aperture by rotation of the hook 14 through 90°, and may be slid in the passage formed between the ends 10a of the shoulders 10.

[Price 2/-]

[Price 3/-]

In its extended position (Fig. 1a) the hanger may be used in an ordinary wardrobe, but if it is to be employed in a wardrobe trunk or travelling case where space-saving is important, it may be used in the retracted position (Fig. 1). If it is difficult to engage the support in the case with the hook 14 when the latter is retracted (owing to the close packing of the contents) the support may be engaged with the hood extended, and the hook may then be retracted when the hanger is in position. To this end that portion of the side of the metal union 11 lying between the apertures 12, 13 may be formed as a spring finger 16, so that the tail 15 of the hook may be moved from the aperture 12 to the aperture 13 without rotation of the hook.

In Fig. 3 each of the shoulders 10 has secured around the upper edge thereof a strip of resilient material 17 such as rubber, as shown in cross-section in Fig. 4. Normally this strip projects upwardly, as shown in Fig. 4, taking up little space from back to front of the hanger, but when a coat is placed thereon the resilient strip 17 is spread, as shown in Fig. 4a, so as to present a substantial supporting area for the shoulders of the coat.

Alternatively the resilient strip may be of tubular cross-section as shown in Fig. 5 at 18, and the dimensions and resiliency thereof may be chosen to secure the desired spread when a coat or the like is being supported.

In Fig. 6 are shown a pair of resilient strips 19 unconnected with one another and secured at opposite sides of the shoulder 10 of the hanger. Such strips may be of fibre board or other suitable material, and, while normally lying substantially parallel with one another, may be bent outwards to the desired extent, if necessary by the fingers of the user when a coat or the like is being put on the hanger. The strips 19 may be scored as at 20 (Fig. 7) to facilitate the outward bending or hinging, or may be formed with substantially vertical cuts or gores 21 for the same purpose.

It is to be observed that the flexibility of the member or members on the shoulders of the hanger is of importance when the coat or the like is placed in a suitcase where sav-

ing of space is essential and where said member or members may be brought, by its own resiliency or by pressure, substantially into the plane of the hanger, whereas the effective thickness over which the weight of a suspended coat is distributed is of importance when the coat is placed in a wardrobe where saving of space is not essential and where the coat remains for a comparatively long time.

Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is:—

1. A hanger for coats or the like having a flexible member on each shoulder of the hanger arranged to bend or spread under the weight of a coat or the like in a direction normal to the span of the hanger and so increase the effective thickness on which the shoulders of the coat rest.

2. A hanger as claimed in Claim 1, wherein the flexible member is constituted by a strip of resilient material presenting, when secured to the hanger, a cross-section of substantially tubular shape.

3. A hanger as claimed in Claim 1, wherein the flexible member is constituted by at least two strips of resilient material secured to the sides of the shoulder of the hanger and projecting upwardly above said shoulder.

4. A modification of the hanger claimed in Claim 1, comprising two resilient members of flexible material joined together but leaving the upper edges of their shoulder portions free to spread under the weight of a coat or the like.

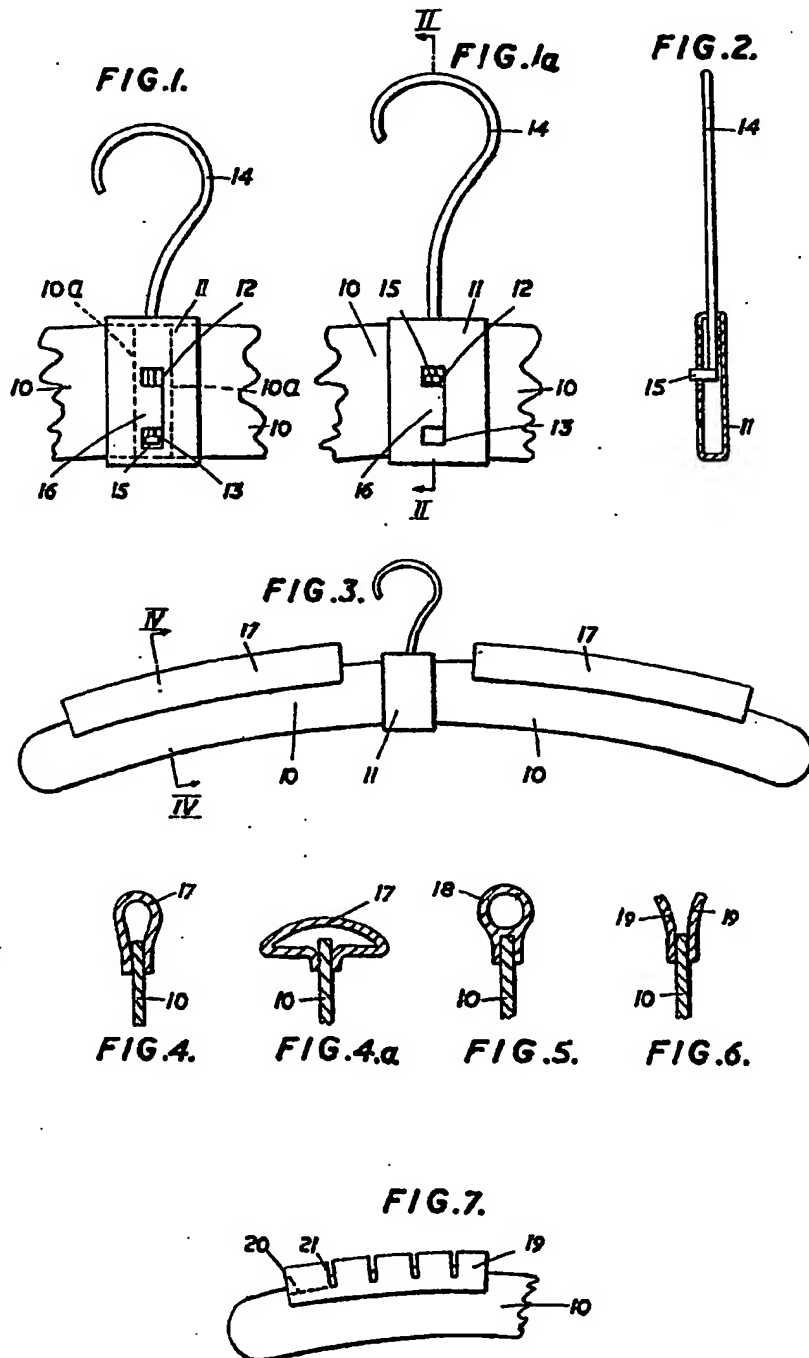
5. A hanger as claimed in Claim 3 or Claim 4, wherein the strips are formed with substantially vertical cuts or gores at spaced intervals, so as to provide a number of hinging flaps.

6. A hanger as claimed in Claim 1 having a hook arranged to be slidable vertically relatively to the hanger and to be secured in either an extended or a retracted position for the support of the hanger.

Dated this 11th day of December, 1946.

A. M. & WM. CLARK,
Chartered Patent Agents,
Quality House, 5/9 Quality Court,
London, W.C.2.

[This Drawing is a reproduction of the Original on a reduced scale.]



EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 10272047
PUBLICATION DATE : 13-10-98

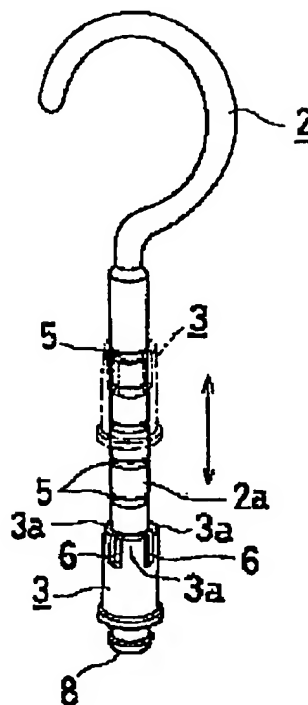
APPLICATION DATE : 31-03-97
APPLICATION NUMBER : 09081128

APPLICANT : N K PROD:KK;

INVENTOR : MASUDA SATOSHI;

INT.CL. : A47G 25/32

TITLE : HOOK LEVEL ADJUSTING
MECHANISM IN HANGING DEVICE



ABSTRACT : **PROBLEM TO BE SOLVED:** To provide a hook length adjusting mechanism in which a suspension height position of a clothing hanger can be changed as desired without using a separate hanging member from the clothing hanger (hanging device), and which can be applied to other clothing hanging devices such as a clothes hanger.

SOLUTION: A hook 2 having plural lock grooves 5, 5... in the circumferential direction in a circumferential surface of a drum part 2a is inserted to a hanger main body to be protruded upward. A cylindrical stopper 3 is vertically movably engaged with the hook drum part 2a. The stopper 3 has a locking protrusions on upper end inner edges of upper parts 3a, 3a... four-parted in the circumferential direction. In the condition where the locking protrusion is locked to the locking groove 5 desired, the stopper 3 is engaged with a stopper receiving part, so the stopper receiving part restrains the drum part circumferential wall upper parts 3a, 3a..., thereby a locking condition of the locking protrusion is held.

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	GB 619 455 A (KENNEDY ERNEST NORBERT) 9 March 1949 (1949-03-09) * figures 1,2 *	1-4,7,18	A47G25/32
X,P	GB 2 377 631 A (BRAITRIM LTD) 22 January 2003 (2003-01-22) * figures 4,5 *	1-4,7,18	
X	US 3 679 100 A (BRORSON DONALD L ET AL) 25 July 1972 (1972-07-25) * figures 12,13 *	1-4,7,8,18	
X	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 01, 29 January 1999 (1999-01-29) -& JP 10 272047 A (N K PROD:KK), 13 October 1998 (1998-10-13) * abstract; figure 3 *	1,2,4,18	
X	US 4 669 642 A (NICHOLAS ROBERT J L) 2 June 1987 (1987-06-02) * figure 7 *	1-4,8,15,18	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			A47G
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 26 February 2004	Examiner Reichhardt, O
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 03 07 8822

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

26-02-2004

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
GB 619455	A	09-03-1949	NONE		
GB 2377631	A	22-01-2003	NONE		
US 3679100	A	25-07-1972	NONE		
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US 4669642	A	02-06-1987	NONE		